

411 Doors

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GENERAL

This repair group covers front and rear door repair information, including removal and installation of the interior door panels.

WARNING —

Late M3 models have aluminum doors. Use extra care in handling aluminum parts in order to avoid damage from gouging or corrosion.

NOTE —

- For information on the power door windows and door glass replacement, see **512 Door Windows**.
- For information on the power door locking system, see **515 Central Locking and Anti-Theft**.

DOORS

WARNING —

Some 1997 and all 1998 cars are fitted with side-impact airbags in the front doors. When servicing doors on cars with front side-impact airbags, always disconnect the negative (–) battery terminal. See **721 Airbag System (SRS)** for cautions and procedures relating to the airbag system.

Front or rear door, removing and installing

1. If working on front door with side-impact airbag, disconnect negative (–) battery cable.

CAUTION —

Prior to disconnecting the battery, read the battery disconnection cautions given at the front of this manual on page viii.

2. Unbolt main harness connector at door pillar and separate connector. See Fig. 1.

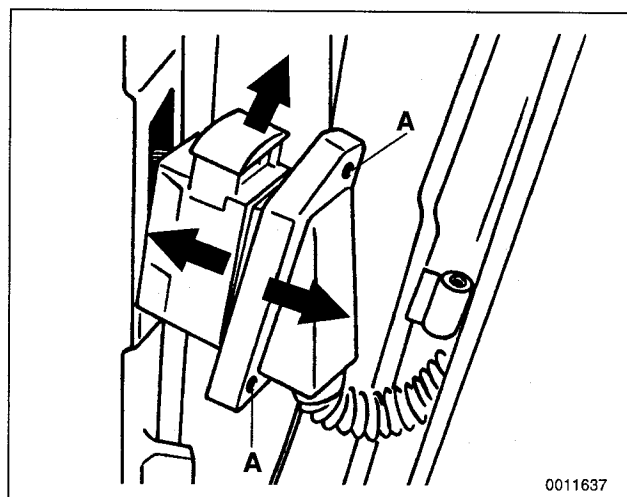


Fig. 1. Door harness connector being removed from door pillar. Remove mounting screws at **A**, then separate connector by pulling up on harness lock (**top arrow**).

3. With door fully open, remove pin bolts from top and bottom door hinges. See Fig. 2.

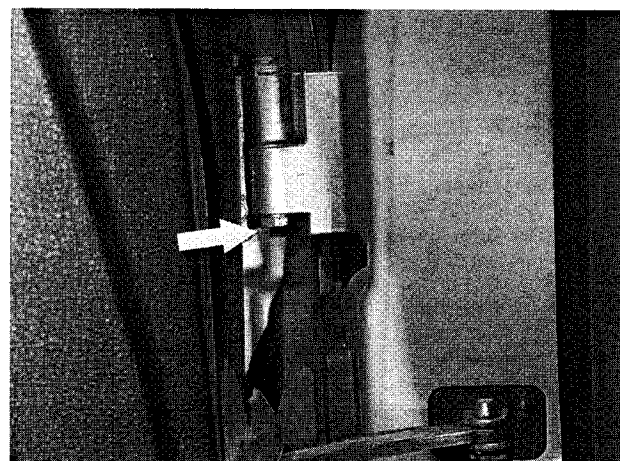


Fig. 2. Door hinge pin bolt (**arrow**). Top hinge shown. Also remove pin bolt from lower hinge.

DOORS

4. Remove retainer clip (early models only) from door check pin on body pillar. Drive out door check pin. See Fig. 3.

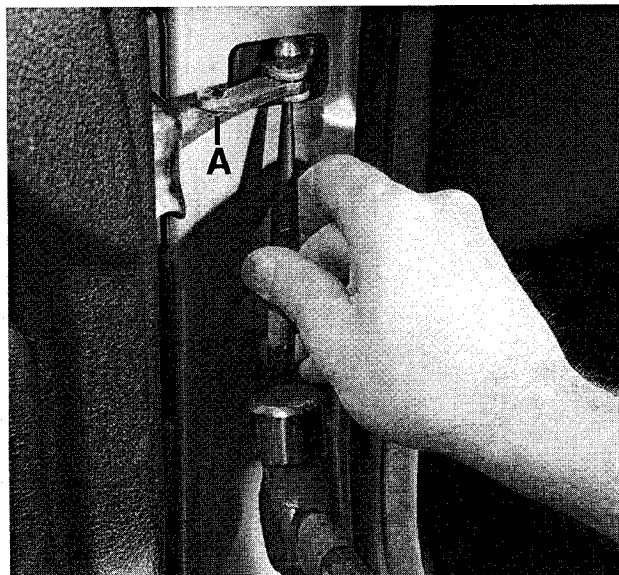


Fig. 3. Door check pin being removed. Note retainer clip (A) used on early models.

5. Remove door by lifting up off lower hinge halves.

CAUTION —

Be careful not to damage door or other painted body surfaces. Make sure no load is placed on wiring harness.

6. Installation is reverse of removal. Keep in mind the following:

- Align door so that panel gaps are equal on either side, as described later. If necessary, adjust door hinges as described later.
- Adjust door striker so that trailing edge of front door is slightly higher (1 mm) than leading edge of rear door. See **515 Central Locking and Anti-Theft**.
- Repair any paint damage and paint any exposed metal.

CAUTION —

- In 2-door models, removing and installing the door may upset the adjustment and alignment of the window. Window adjustment, as described in **512 Door Windows**, must be carried out after installation to prevent damaging the glass.
- If battery power is lost or the battery has been disconnected, the windows must be re-initialized. Both one touch up/down and pinch-protection will be inactive until windows are re-initialized. See **512 Door Windows**.

Door Adjustment

- Door gap
to fender/rear door approx. 5 mm (0.189 in)
- Permissible deviation from parallel. .05 mm (0.020 in)

Door check, replacing

WARNING —

*Some 1997 and all 1998 cars are fitted with side-impact airbags in the front doors. When servicing doors on cars with front side-impact airbags, always disconnect the negative (-) battery terminal. See **721 Airbag System (SRS)** for cautions and procedures relating to the airbag system.*

1. Close door window completely.
2. If working on front door with side-impact airbag, disconnect negative (-) battery cable.

CAUTION —

Prior to disconnecting the battery, read the battery disconnection cautions given at the front of this manual on page viii.

3. Remove interior door panel and vapor barrier as described later.
4. Where applicable, remove side-impact airbag from door. See **721 Airbag System (SRS)**.

NOTE —

In some models covered in this manual, it is not essential to remove the side-impact airbag to access internal door components. However, the procedure is recommended for safety reasons.

5. Remove retainer clip (early models only) from door check pin on body pillar. Drive out door check pin. Refer to Fig. 3.
6. Remove bolts and rubber cover from door check lock-plate on door.
7. Remove door check from inside door.
8. Installation is reverse of removal.
 - Lubricate door check before installing.
 - Use new mounting bolts when reinstalling the side-impact airbag to the door (where applicable).
 - If battery was disconnected, re-initialize window regulator motors as described in **512 Door Windows**.

Door Hinge Adjustment

If the installed door is uneven or out of parallel, shims can be used to correct its position. The shims are placed behind the hinge plate and are available in two different thicknesses (0.5 mm and 1.0 mm). See Fig. 4.

Tightening Torque

- Door hinge to door 21 Nm (15.5 ft-lb)
- Door striker to door 25 Nm (18 ft-lb)

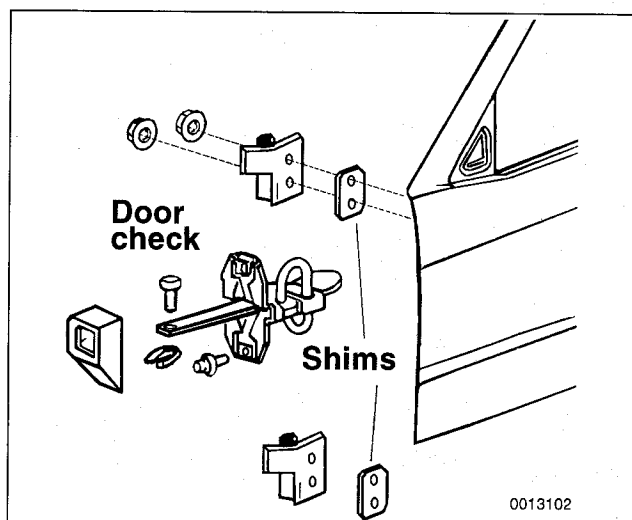


Fig. 4. Door hinge and door check components. Front and rear doors are similar.

DOOR PANELS

WARNING —

Some 1997 and all 1998 cars are fitted with side-impact airbags in the front doors. When servicing doors on cars with front side-impact airbags, always disconnect the negative (-) battery terminal. See **721 Airbag System (SRS)** for cautions and procedures relating to the airbag system.

Front door trim panel, removing and installing

1. On cars with side-impact airbags, disconnect negative (-) battery cable.

CAUTION —

Prior to disconnecting the battery, read the battery disconnection cautions given at the front of this manual on page viii.

2. Carefully pry out mirror adjustment switch and disconnect harness connector from switch. Fig. 5.

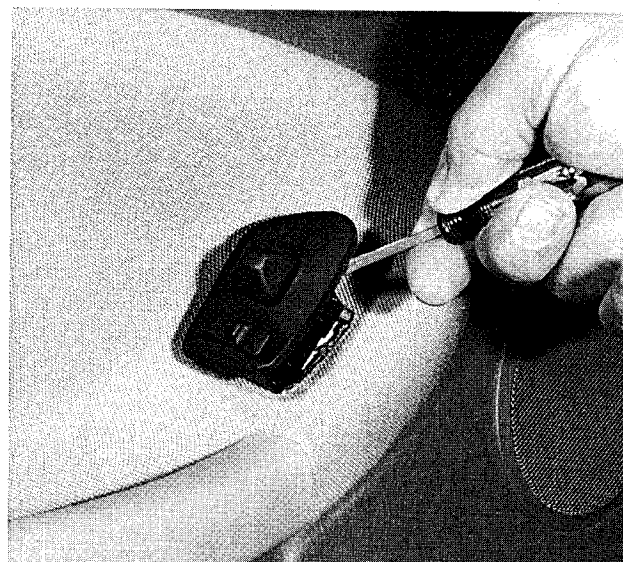


Fig. 5. Pry outside mirror switch from door armrest.

3. Unscrew door locking knob.
4. Pry off trim cover for inside door handle. Pry off concealing plugs from armrest. Remove door panel retaining screws. See Fig. 6.

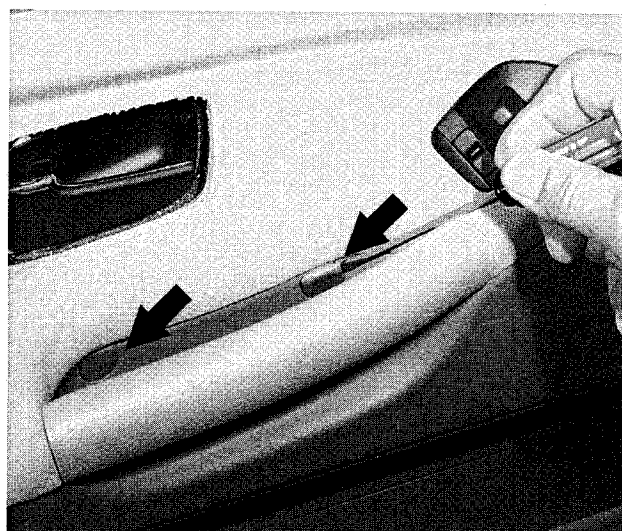
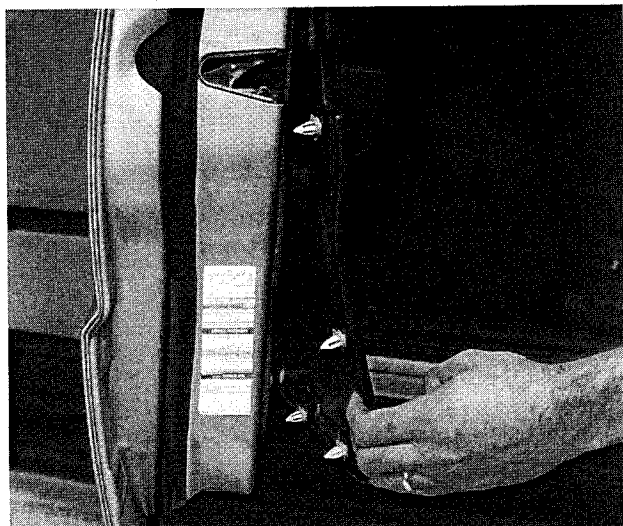


Fig. 6. Pry off plugs (arrows) and remove screws.

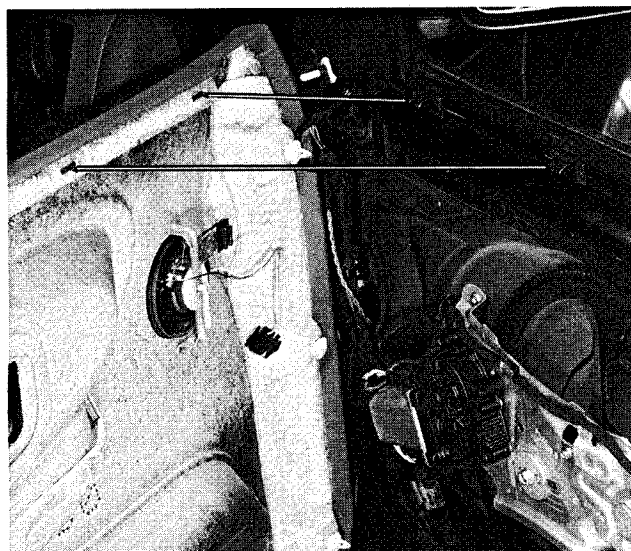
5. Unclip door panel from door perimeter. See Fig. 7.



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Fig. 7. Door panel being unclipped from door. Pull panel retaining clips off one at a time.

6. Disconnect radio speaker harness connector.
7. Installation is reverse of removal, noting the following:
 - Replace any damaged plastic parts or clips.
 - Renew vapor barrier if it is damaged.
 - Use new mounting bolts when reinstalling the side-impact airbag to the door (where applicable).
 - When installing door panel, align metal retainers on window sill with openings on top of door panel. See Fig. 8.
 - Check door-lock mechanism and window for ease of movement.
 - If battery was disconnected, re-initialize window regulator motors as described in **512 Door Windows**.



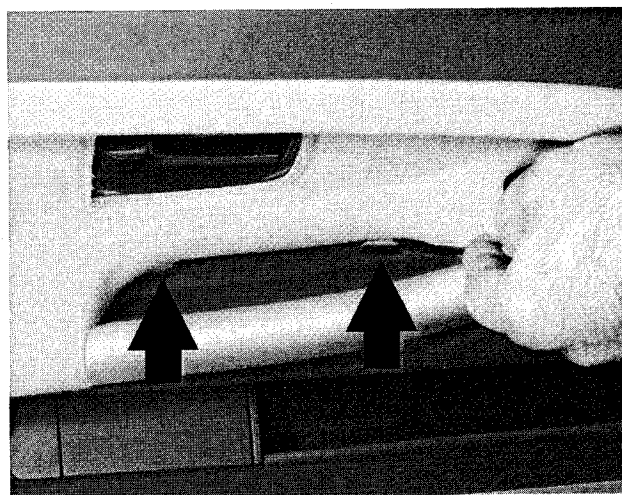
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Fig. 8. Metal retainers at base of window should be in position to mate with openings in door trim panel.

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Rear door trim panel, removing and installing

1. Open door and pry out power window switch. Disconnect harness connector.
2. Remove ash tray.
3. Pry off trim cover from inside door handle.
4. Pry off concealing plugs from armrest. Remove door panel retaining screws. See Fig. 9.



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Fig. 9. Pry off plugs (arrows) and remove screws.

5. Unscrew door locking knob.
6. Unclip panel from door perimeter, starting at the top of the door.
7. Installation is reverse of removal.
 - Replace any damaged plastic parts or clips.
 - Renew vapor barrier if it is damaged.
 - Align metal retainers on window sill with openings in trim panel. Refer to Fig. 8.
 - Check door-lock mechanism and window for ease of movement.

Rear side trim panel, removing and installing (coupe models)

1. Remove rear seat cushion. Remove rear backrest side section. See **520 Seats**.
2. Pull off edge trim at bottom of rear side window. See Fig. 10.
3. Gently unclip trim panel and remove.
4. Installation is reverse of removal.
 - Replace any damaged plastic parts or clips.



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Fig. 10. Panel edge trim piece trim being removed.

Rear side trim panel, removing and installing (convertible models)

To remove the rear side panel in convertible models it is necessary to:

- Remove rear seat cushion and rear backrest side section.
- Lower side window; open convertible roof.
- Left side: Remove convertible top lid release lever trim.
- Remove power window switch and disconnect harness connector.
- Remove door panel inset by pulling forward.
- Remove corner protector rubber trim.
- Pull off side panel after removing screw fastener(s). Disengage from front shoulder belt.



